

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. *(Canceled)*
2. *(Canceled)*
3. *(Previously presented)* A cuff for measuring physiological parameters of an appendage, comprising:
 - a hollow, rigid tube having an inner surface and opposed ends; and
 - a bladder having an inner surface, an outer surface, and opposed ends, the ends of the bladder being sealed to the ends of the tube to create an enclosed internal volume between the inner surface of the bladder and the inner surface of the tube and an external volume defined by the outer surface of the bladder and surrounded by the internal volume, the bladder having a normal, relaxed state, in which the internal volume is filled with a fluid and a retracted state in which the fluid is evacuated from the internal volume,
 - wherein the bladder is tubular in shape, and wherein the ends of the bladder overlap the ends of the tube, and
 - wherein the thickness of the bladder is greater where the ends of the bladder overlap the ends of the tube.

4. *(Previously presented)* The cuff of claim 3, wherein the bladder has a center portion between the ends and a transition region between the ends and the center portion, and wherein the thickness of the bladder is greater at the transition region.

5. *(Canceled)*

6. *(Previously presented)* A cuff for measuring physiological parameters of an appendage, comprising:

a hollow, rigid tube having an inner surface and opposed ends;

a bladder having an inner surface, an outer surface, and opposed ends, the ends of the bladder being sealed to the ends of the tube to create an enclosed internal volume between the inner surface of the bladder and the inner surface of the tube and an external volume defined by the outer surface of the bladder and surrounded by the internal volume, the bladder having a normal, relaxed state, in which the internal volume is filled with a fluid and a retracted state in which the fluid is evacuated from the internal volume; and

two stiffener ribs placed on the inner surface of the bladder, parallel to each other and parallel to the longitudinal axis of the tube at diametrically opposite positions.

7-11. *(Canceled)*

12. (*Original*) The cuff of claim 6, further comprising a plurality of emitters and detectors positioned in the enclosed internal volume.

13. (*Original*) The cuff of claim 12, wherein the emitters and detectors are embedded in one of the stiffener ribs.

14. (*Canceled*)

15. (*Canceled*)

16. (*Previously presented*) A cuff for measuring physiological parameters of an appendage, comprising:

a hollow, rigid tube having an inner surface and opposed ends;

a bladder having an inner surface, an outer surface, and opposed ends, the ends of the bladder being sealed to the ends of the tube to create an enclosed internal volume between the inner surface of the bladder and the inner surface of the tube and an external volume defined by the outer surface of the bladder and surrounded by the internal volume, the bladder having a normal, relaxed state, in which the internal volume is filled with a fluid and a retracted state in which the fluid is evacuated from the internal volume;

a plurality of emitters and detectors positioned in the enclosed internal volume, wherein the emitters and detectors are placed on the inner surface of the bladder, and the emitters and detectors respectively emit and detect light through the bladder; and

a stiffener rib placed on the inner surface of the bladder, wherein the emitters and detectors are embedded in the stiffener rib.

17-20. (*Canceled*)